

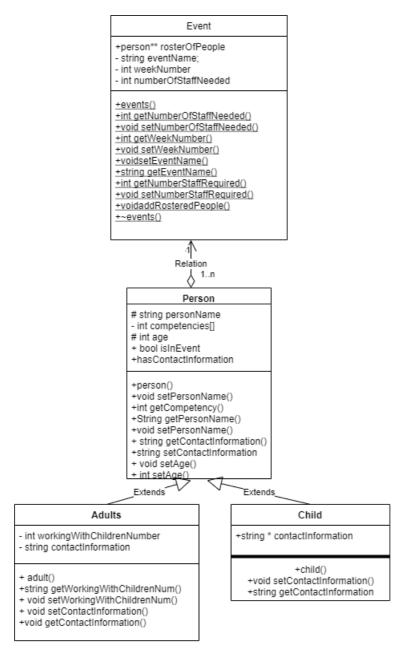
Design Description

Assessment Concepts

- 1. Memory allocation from the stack and the heap
 - Arrays
 - Strings
 - Objects
- 2. User Input and Output
 - I/O of different data types
- 3. Object-oriented programming and design
 - Inheritance
 - Polymorphism
 - · Abstract Classes
- 4. Testing
 - Test Inputs / Expected Outputs
 - Automated Testing
 - Regression Testing

Class Diagram

Design Description 1



Class Descriptions

The program will contain Roster, Event and Person (with its two child classes).

A roster will contain several event objects, each of which will contain several person objects.

This structure considers the logistics of creating a roster, giving the roster class access to all event and person information. Code is reused through the use of inheritance from the person class to its child classes adult and child.

User Interface

The user of this program is a Organizing a team of people for a term. To interact with the program they use the command line. When the user starts the program they are presented with a list of options to choose from.

Design Description 2

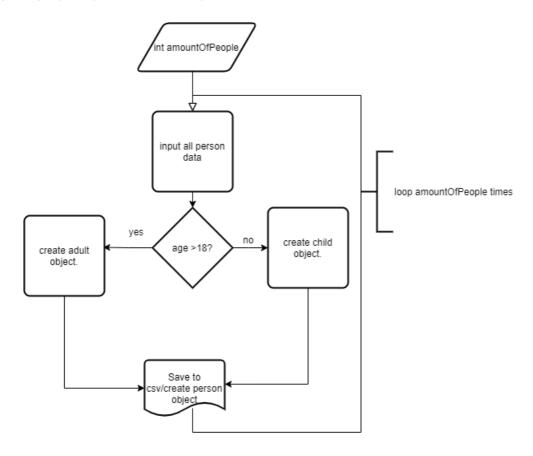
Welcome!

Please select from one of the following options:

- 1. Add a Person to the Team
- 2. List the Team
- 3. Remove a Person from the Team
- 4. Create a New Roster.
- 5. View the Previous Roster.

Algorithm Design

Adding new people objects with user entry:



Design Description 3